

# Junior found dead in Next House

## Investigation ongoing; police say no danger to community

By Anne Cai  
NEWS EDITOR

Brian G. Anderson '13 was found dead in his third floor Next House dormitory room by MIT Campus Police slightly before noon yesterday. He was 21.

Anderson was found dead when campus police were called to do a well-being check at Next House late yesterday morning. The Cambridge Police Department and his family were notified. The Massachusetts State Police and the Middlesex District Attorney are conducting an investigation, according to the MIT News Office. The MIT Police reported that "there is no imminent danger to the MIT community."

"Questions will naturally arise about the circumstances of this death," said MIT Chan-

cellor Eric Grimson PhD '80 in a statement through the News Office. "In order to get complete answers, we must allow time for the authorities to conduct their investigation. I encourage everyone to refrain from speculation. At this early stage, there is no strong indication that Brian's death was the result of suicide."

Anderson is the third MIT student found dead in under six months. Nicolas E. Del Castillo '14 was found dead in September, and Satto Tonegawa '15 died in October. Both were deemed suicides.

"What I hope we will all do is take the time to strengthen the bonds of community," Grimson added in an email to students. "Reach out to your friends, your peers in class or student groups, or your neighbors in a dormitory or living group. If people you know seem upset or

distracted or stressed, *please reach out*: offer to talk, offer to connect them with staff who can help them deal with this trauma, offer to share your own support."

Anderson came from Redwood Falls, MN, where he attended Redwood Valley Senior High School. He was a Course 15 (Management) major.

A member of the Beta Theta Pi fraternity, which was disbanded last year, Anderson was also an member of MIT's wrestling team since his freshman year, when the team won the 2010 National Collegiate Wrestling Association (NCWA) Division II National Championship.

Members of the community who feel affected by this death are encouraged to contact Mental Health Services at 617-253-2916, or talk to their housemasters or GRTs.



SOURCE: FACEBOOK

## Letter from the Chancellor

We are all deeply saddened by the passing of Brian G. Anderson, a member of our community, and the third death of a student on campus during this academic year. Any one of these events stuns us; to have three in a year is incomprehensible.

I know that many of you will struggle to make sense of this, and I want to take this opportunity to remind all of us — students, faculty, staff — that communities support one another during challenges like this. Until the official investigation by the appropriate state and local authorities is complete,

we will not fully know what led to this tragedy, but I encourage everyone to refrain from speculation. What we do know at this stage is that there is no strong indication that Brian's death was the result of suicide, and the MIT Police believe that the circumstances of the death do not signal any imminent danger to the MIT community.

What I hope we will all do is take the time to strengthen the bonds of community. Reach out to your friends, your peers in class or student group, or your neighbors in a dormitory or living group. If people you know seem upset or distracted or stressed, please reach out: offer to talk, offer to connect them with staff who can help them deal with this trauma, offer to share your own support.

Of course, our thoughts at this time go out to Brian's family, to his colleagues on the wrestling team, to his peers from the formerly active Beta Theta Pi fraternity and from Next House, and to his friends from class, and from Course 15. We all feel a deep sense of loss when a promising young life ends. This sense of loss can affect us in different ways, and I personally hope that each of you takes a bit of time away from your academic routine to reflect on your connections to our community and on your sense of personal well-being.

If you find this event causing you to feel overwhelmed, please reach out — to a friend, to your housemaster, to a member of the student support staff, to a mentor, to one

of the deans, to a faculty member, to a departmental administrator. If you need guidance, support or just a sympathetic ear, MIT faculty and staff are here to help. Remember that you can find links to a wide range of resources at [http://web.mit.edu/student/personal\\_support.html](http://web.mit.edu/student/personal_support.html).

I hope this will be a time when we join in strengthening our MIT community: by reaching out to peers, colleagues, friends, and mentors to renew our sense of connection; by taking advantage of MIT resources for help in dealing with the emotional challenges brought on by these events; and by reflecting on our goals and aspirations, individually and together.

—Chancellor Eric Grimson PhD '80

# DiCarlo to head BCS

## Neuroscientist's term begins March 1

By Bruno B.F. Faviero  
STAFF REPORTER

This past month, Associate Professor of Neuroscience James DiCarlo was announced as the new head of the Department of Brain and Cognitive Sciences (BCS). The BCS department is the home of the Course 9 major, and it is the academic home of most of the faculty members in the Picower Institute for Learning and Memory, the McGovern Institute for Brain Research, and the new Simons Center for the Social Brain, headed by outgoing BCS head Mriganka Sur.

The Tech caught up with DiCarlo at his office to talk about his goals for the future of BCS.

TT: So this is mostly to learn about the new BCS head, a little bit about Jim. Oh, sorry, Professor DiCarlo.

JD: My undergraduate students call me Professor DiCarlo and that still sounds a little weird to me. So it's totally OK to call me Jim.

TT: How do you feel about being the new department head?

JD: First, it's a real honor. The confidence and support that so many people have given me are overwhelming and humbling. We are the world's leading neuroscience and cognitive science depart-



KENT DAYTON—MIT NEWS OFFICE

ment, and handing me the reins to that is really an honor and a challenge. ... It's a lot to do. Over the last 10 years we've increased our faculty size almost 50 percent to nearly 40 primary faculty. We have tremendous faculty, and together, we bring tremendous diversity in techniques and research questions. Indeed, our strength is our diversity, from molecular neuroscience, to systems neuroscience, to computational neuroscience, all the way up to cognitive neuroscience. But that diversity is also something that we have to work hard to integrate, to make sure that we have research that cuts across those lines, to make sure we

DiCarlo, Page 10

## MIT SPORTS

# Swim & Dive take NEWMAC title

## Next stop for Engineers is NCAA Div. III Nationals

By Gordon Glober

Our Engineers got off to a decisive start at this year's NEWMAC swimming and diving finals this weekend. The men's and women's teams opened the meet winning a combined 8 of 13 events. By the end of the first evening, the men's team led with an impressive 323 points to second place United States Coast Guard Academy with 220 points. The women's team held a strong lead with 323 points over Springfield College's 256.

Early Friday evening, rising star Emily A. Ryan, a freshman from Indianapolis, put her stamp on the meet as she placed first in the women's 500-yard freestyle. Ryan dominated this event from the start as she maintained multiple second leads on each of her 50-yard split times. By the end of the race, she finished a dramatic



JESSICA L. WASS—THE TECH

**Swimmers compete in the 200-yard freestyle relay.** MIT won the event with team members William C. Dunn '14 (center), Austin D. Fathman '15, Brendan T. Deveney '13, and Wyatt L. Ubellacker '13.

Swim & Dive, Page 16

## IN SHORT

**Classes today** are on a Monday schedule.

**The final exam schedule** will be available Thursday, Feb. 23 at 5 p.m.

at [web.mit.edu/registrar/classrooms/exams/finals/index.html](http://web.mit.edu/registrar/classrooms/exams/finals/index.html).

**The Spring UROP Direct Funding** application deadline is Thursday, Feb. 23.

**Minor Completion forms** must be submitted by Friday, Feb. 24 for final-term seniors. Late forms will be charged a \$50 fee.

**Send news information and tips to** [news@tech.mit.edu](mailto:news@tech.mit.edu).

## COMMUNITY WEIGHS IN

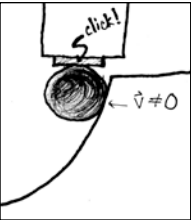
Responses from around campus come in on affirmative action issue. **OPINION, p. 4-6**

## DIVERSITY STRENGTHENS MIT

Profs. Hazel Sive and Paula Hammond lend their voices. **LETTERS, p. 4-5**

## GETTING IN SHAPE

Workouts aren't as onerous as you might think. **CAMPUS LIFE, p. 15**



## PHYSICS SAVES LIVES

According to the latest *Least Action Principle*. **FUN, p. 7**

## ENGINEERS FANS DRESSED IN PINK

Women's basketball fall to Clark 61-50 but fundraised for cancer fund. **SPORTS, p. 16**

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# Saleh cedes power in Yemen but hopes to retain influence

By Laura Kasinof  
THE NEW YORK TIMES

SANAA, Yemen — A day before a national vote that will mark the end of his presidency, Ali Abdullah Saleh signaled his hope to be an anomaly in the Arab Spring: a toppled autocrat who can preserve some degree of influence in his nation’s governance. “I say farewell to the authority,” Saleh said in a written statement read Monday by an anchor, Amal al-Sharamy, on Yemen state TV. “I remain with you a citizen loyal to his homeland, his people, and his nation as you have known me through thick and thin,” al-Sharamy read as she began to weep. “I will perform my duty and my role in serving the country and its just causes” via the ruling party, Saleh said.

Yemenis are scheduled to formalize the selection of a new president Tuesday when they go to the polls, where there will be only one candidate, Vice President Abed Rabbo Mansour Hadi, who was nominated in a deal between the ruling party and formal opposition parties. The vote will serve as a mechanism to formally remove Saleh from power and strip him of his authority. Although it is hardly an exercise in democracy, it is an important moment for a nation that has been mired in conflict for more than a year, leaving its economy in tatters and many people dead or wounded. The prospect of an end to the violence and a chance at rebuilding delighted many Yemenis and provoked a noticeable change of mood on the streets of Sanaa. But there was also a recognition

by many that the transition of power was merely a first step, with much work awaiting a nation that has increasingly come unraveled. One task ahead is the need to restore the ability to fight terrorism. Al-Qaida and its followers have taken advantage of the power vacuum in Yemen to spread their influence and control. A high-ranking Yemeni official who spoke on condition of anonymity because of the sensitivity of the subject said that the United States will be playing a leading role in the restructuring of the armed forces after Hadi becomes president. John Brennan, President Barack Obama’s chief counterterrorism adviser, said there will be a series of visits from U.S. officials who will focus on a variety of issues, including military restructuring.

# Mitt Romney goes after Rick Santorum on budget

By Jeff Zeleny and Jim Rutenberg  
THE NEW YORK TIMES

CINCINNATI — Mitt Romney was barely six minutes into a campaign speech here Monday afternoon, dwelling on the success story of a local bioscience company, when he broached a topic that is suddenly confounding his Republican presidential aspirations: Rick Santorum. “Sen. Santorum goes to Washington and calls himself a budget hawk, and after he’s been there a while, he says he’s no longer a budget hawk,” Romney said, his voice rising for emphasis as he looked out at the row of cameras before him. “Well, I am a budget hawk.” As Santorum was greeted by a large and enthusiastic crowd four hours away in Ohio’s coal country, he made no mention of his rival, a clear sign that the tables have turned — for now, at least — in the Republican nominating contest, leaving Romney scrambling to regain his command over the race. While Romney may not know for weeks or even months whether he will win the nomination, his performance over the next seven days will

likely provide a telling signal about whether he can persuade the party at last to embrace his candidacy or whether he faces a long fight to overcome its skepticism about him. After a stretch in which Santorum’s focus on appealing to conservatives through social issues has dominated the campaign, Romney has two high-profile opportunities this week to steer the conversation back to the economy and defeating President Barack Obama: a debate Wednesday in Arizona followed by a speech Friday in Michigan that his campaign is billing as a major policy address. Both states will hold their primaries next Tuesday. There are few outward signs that panic has set in at the Romney campaign — the delegate-by-delegate chess game has only begun — but concern is palpable among Romney, his allies, and Republican Party elders, many of whom are increasingly fretting aloud about the prospect that he may not be as electable as he seemed only weeks ago. “It’s way too premature to be talking about something like that,” said Sen. Rob Portman of Ohio, a top supporter of Romney, when asked about the growing worries from some of his

colleagues about the need to prepare for a backup Republican candidate. “He knew that this was going to be a long haul. He’s been through it before.” But Romney has not been through this moment before, so close to grasping the nomination yet so far away from persuading conservative activists that he has the strongest potential as a nominee to appeal to independent voters and defeat Obama. “I wish this was over,” Alex Triantafilou, the Republican Party chairman in Cincinnati, said in an interview Monday. The Romney campaign has shed much of the bravado that was often on display last year when it focused on Obama and all but ignored its Republican rivals. (During a Chicago visit in May, aides to Romney sent leftover pizza to the Obama campaign office, just to make the campaign aware that they were on the president’s home turf.) Romney had hoped to resume his confident posture against Obama with a Chicago speech March 20, the day of Illinois’ primary. But those plans are on hold, given that Romney could still be battling Santorum.

# Settlement talks pick up ahead of BP oil spill trial

By John Schwartz  
THE NEW YORK TIMES

NEW ORLEANS — Nearly two years after the oil rig explosion that killed 11 people and spilled millions of barrels of crude oil into the Gulf of Mexico, the myriad plaintiffs suing BP and other companies over the disaster are about to get their day in court. Or not. With the start of the high-profile trial set for next Monday, and the specter of potential liability that some experts have estimated at \$40 billion, BP and other defendants are stepping up negotiations to end the litigation before Judge Carl J. Barbier of U.S. District Court picks up his gavel. “We are ready to settle, if we can do so on fair and reasonable terms,” Robert Dudley, BP’s chief executive, said this month during a conference call about the company’s earnings. “But we are preparing vigorously for trial.” Charges from hundreds of civil

cases from plaintiffs that include the U.S. government, state and local governments, and individuals and businesses have been consolidated in a federal courtroom here. Along with BP, defendants include Transocean, the owner of the Deepwater Horizon rig; Halliburton, the company that poured the concrete that lined the well; and Cameron International, which made the industry fail-safe device known as a blowout preventer. Numerous reports have identified errors and problems that contributed to the largest oil spill in U.S. history, including a faulty concrete job, poor decisions leading up to the blast and the failure of the blowout preventer’s rams and blades to stop the oil. Several attorneys familiar with the negotiations said settlement talks had intensified in recent weeks. On Friday, Moex Offshore became the first company among the defendants to settle with the government. Moex, which owned 10 percent of the well but did not

have a role in operating it, agreed to pay \$90 million to federal and state governments. The Department of Justice said the deal included \$70 million in civil penalties, the most ever under the 1972 federal Clean Water Act — a record that is likely to be broken before long. Some of the remaining obstacles to a larger settlement deal are among the defendant companies, rather than between them and the plaintiffs, and concern the amounts that the various parties would contribute toward the negotiated sum. To many familiar with the case, there is little question that BP would be better off settling. For one thing, a settlement with the federal government could involve a resolution of criminal charges, which have yet to be filed. Pressure on BP to settle also comes from the company’s continuing desire to drill in the Gulf, said David M. Uhlmann, a professor at the University of Michigan Law School.

# European ministers are poised to approve Greek rescue

BRUSSELS — After months of tense negotiations, eurozone finance ministers worked deep into the night Monday to try to agree on a second giant bailout to bring Greece back from the brink of default, subject to strict conditions and in exchange for yet more severe austerity measures. Under the bailout terms, Greece is supposed to reduce its debt to 120 percent of gross domestic product by 2020, from about 160 percent now. But the steady deterioration of the public finances in Athens have left the country’s creditors with problems in making the figures for Monday’s bailout add up, and the latest estimates suggest that figure would be closer to 129 percent. The talks in Brussels are trying to address how that financial gap will be addressed, to satisfy demands by the eurozone, the European Central Bank and the International Monetary Fund. Representatives of private-sector banks that hold Greek bonds were resisting pressure to accept further losses. Other ways of making the numbers add up would be considered only when the negotiations with the private sector were close to completion, said one eurozone official not authorized to speak publicly. —Stephen Castle, The New York Times

# New guidelines planned on snacks in school vending machines

WASHINGTON — The government’s attempt to reduce childhood obesity is moving from the school cafeteria to the vending machines. The Obama administration is working on setting nutritional standards for foods that children can buy outside the cafeteria. With students eating 19 percent to 50 percent of their daily food at school, the administration says it wants to ensure that what they eat contributes to good health and smaller waistlines. The proposed rules are expected within the next few weeks. Representatives of the food and beverage industries argue that many of their products contribute to good nutrition and should not be banned. Schools say that overly restrictive rules, which could include banning the candy sold for school fundraisers, risk the loss of substantial revenue that helps pay for sports, music and arts programs. A study by the National Academy of Sciences estimates that about \$2.3 billion worth of snack foods and beverages are sold annually in schools nationwide. Nutritionists say that school vending machines stocked with potato chips, cookies and sugary soft drinks contribute to childhood obesity, which has more than tripled in the past 30 years. The Centers for Disease Control and Prevention estimate that about one in every five children are obese. —Ron Nixon, The New York Times

# URS agrees to acquire Flint Energy of Canada

URS, a construction and engineering firm, said Monday that it would acquire Flint Energy Services for \$1.25 billion, in a bid to bolster its presence in North America’s oil and gas industry. URS, a diversified business built largely through acquisitions, is paying a significant premium for Flint, a Canadian provider of construction services. URS will pay Flint’s shareholders 25 Canadian dollars (\$25) a share, nearly a 68 percent premium to its closing price Friday on the Toronto Stock Exchange. URS will also assume about \$225 million in Flint’s debt. With Flint, the San Francisco-based URS will greatly expand its presence in Western Canada’s bustling energy industry. Flint, based in Calgary, Alberta, offers a broad range of construction services used during various stages of the exploration and development of natural gas and oil resources. Flint also derives about 20 percent of its revenue from the United States, with operations in the Southwest, Appalachian and Rocky Mountain regions. The North American oil and natural gas market has had a flurry of deals in the past 12 months, as energy companies buy businesses that own large shale formations — rock that stores natural gas and oil, which can be extracted through hydraulic fracturing, or fracking. —Evelyn M. Rusli, The New York Times

# Israeli court speeds hearing for Palestinian hunger striker

JERUSALEM — Israel’s High Court is slated to hear an urgent petition Tuesday in the case of a Palestinian detained without charge who has been on a hunger strike for two months. The hearing had first been scheduled for Thursday, but his lawyers and human rights groups representing the hospitalized 33-year-old detainee, Khader Adnan, were worried that he would not survive that long. Adnan’s case challenges a decades-old Israeli practice employed almost exclusively against Palestinians, thousands of whom have been detained by military court orders under similar circumstances for months and even years. Adnan is not the first Palestinian to have gone on a hunger strike, but his — 66 days long as of Monday — has proven the most enduring. A medical report prepared last week by an Israeli-accredited doctor on behalf of Physicians for Human Rights-Israel, and filed along with the petition to speed his hearing at the High Court, stated that Adnan was “in immediate danger of death” and that “a fast in excess of 70 days does not permit survival.” Whether Adnan’s case ends in legal victory or death, it is likely to have far-reaching consequences. Adnan began his hunger strike Dec. 18, a day after he was taken from his village, Arraba, in the northern West Bank, according to Addameer, a Palestinian organization that supports prisoners and is providing legal aid in the case. He has worked as a baker but has been identified by Palestinians as a leader of Islamic Jihad, an extremist organization. Adnan was issued a four-month detention order Jan. 8 and it was confirmed by a military judge a month later. A first appeal was rejected Feb. 13. —Isabel Kershner, The New York Times

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## EDITOR'S NOTE

In light of the public response to last Friday's guest column on MIT's affirmative action policies, *The Tech* would like to take this opportunity to clarify its editorial process on the opinion pages.

First and foremost, opinions expressed in guest columns (as Brandon Briscoe's was) or staff opinion columns do not represent the views of *The Tech*. We seek to encourage constructive debates on important issues of the day. To that end, we will sometimes run columns with unpopular opinions, or opinions that Tech staff may personally disagree with.

*The Tech* will occasionally publish its official opinion. Those pieces will be clearly labeled “editorial,” and they do

represent the views of the newspaper. An editorial on the issue of affirmative action appears on page four of this paper.

*The Tech* welcomes a diversity of opinion. Views were sought from key stakeholders across campus in advance of Friday's publication, and many of those are presented here. It is not always possible for a debate to play out in a single issue of *The Tech*.

With that in mind, we have also accepted several guest submissions from current students and alumni. We received over 12 outside submissions as of Sunday — much more than we have received over other topics — but we simply cannot print them all here. Today, we publish letters and guest columns that we determined to be representative of the arguments many contributors were making. We also

refer readers to the comments section of Briscoe's article, where arguments have been posted both in support and opposition to Briscoe's thesis.

*The Tech* stands by its decision to print Briscoe's column. We feel the issue of diversity at MIT is an important one, and we are encouraged that there has been such an energetic response.

We also take our role as a public forum and sponsor of campus debate seriously. Readers who are curious about our editorial process are welcome to email *The Tech's* executive board at [general@tech.mit.edu](mailto:general@tech.mit.edu) or visit our offices in W20-483. Readers are similarly welcome to provide us with feedback and suggestions for how we can do better.

—*Jessica J. Pourian, Editor in Chief*

# Community responds to affirmative action column

## Letters, from Page 4

Science, to ensure that top candidates are not unfairly set aside, we are making sure that application folders, including letters of recommendation, are read carefully, to fully understand the talent of each individual applicant. But we have no numerical goals, or quotas, for hiring from specific population groups, as the author worries. Rather, we feel that if we use fair procedures to enlarge the pool of outstanding candidates and to review applications, the demographics will sort themselves out, just as the author hopes.

There can be a consequence to addressing these equity challenges transparently, that is, a feeling by a candidate in an under-represented group, that s/he does not belong and got here by some special treatment, or mistake. But, I'll tell you a not-so secret ... many, maybe most, students and faculty at MIT, from all demographic groups, worry that they do not really deserve a place here. We need to counter this worry by frequently reminding ourselves that our standards of excellence at MIT are never lowered. The "Report on the Status of Women Faculty in the MIT Schools of Science and Engineering", published last year, highlighted this problem, and others, that women still have to face. For example, in response to a specific example cited by the letter-writer, we need to make sure that key MIT committees represent the population of the Institute, without overburdening women faculty members with excess work.

Finally, are white men, as the author suggests, being discriminated against? Of course not! It is true that the field in which prospective students and faculty play, has changed over the last couple of decades, but it is a much fairer playing field than one that was populated almost exclusively by white men. As we move toward an Institute in which the excellence that naturally occurs across the population is equitably represented, we will become stronger and stronger in our ability to address challenges in our country and the world. We are well on our way to this equity.

Hazel Sive

*Professor of Biology*

*Associate Dean of the School of Science*

# Excellence with diversity

The false idea that the inclusion of people from different groups (race, gender, nationality, etc.) leads to a lowering of standards is one that MIT counters with its diverse faculty and student body. One of the key findings of the Initiative Report regarding inclusion and excellence states: “The promotion of excellence at the highest levels (national and worldwide recognition, significant and high-impact advances) is a key feature of MIT’s strength. One of the greatest tensions associated with achieving a diverse faculty is the idea that by being more inclusive, one sacrifices excellence or dilutes quality.”

There is an incorrect assumption, typified by the letter-writer's statements, that

high levels of achievement and excellence are somehow compromised when we seek to ensure that the MIT environment presents a diverse set of scholars — one that better reflects who we are as a nation and world. The goal at MIT — and elsewhere — is not to achieve diversity at the cost of excellence, it is to realize excellence through diversity and achievement in every form.

**At MIT and most institutions that depend on teamwork, diversity is an essential component of excellence.**

The writer's letter never defines either excellence or diversity. It sets up implicitly a one-dimensional scale on which the excellence of each individual can be measured exactly and unambiguously, and if an institution seeks to maximize its excellence; it must therefore make personnel selections on the basis of how much excellence, so measured, each applicant demonstrates. Often that scale is provided by scores achieved in a supposedly objective set of tests. Factors that make applicants diverse are irrelevant to the decision. This model of excellence is obviously a straw-man. Excellence is a multi-dimensional quality which may include demonstrated acquired knowledge, originality and creativeness, suitability for the sought activity (e.g. knowledge of the community to be served), motivation and character, and many others; it is a vector in multi-dimensional space.

Many of the qualities and characteristics that define ultimate excellence are not known, or even knowable at decision time. Therefore it is prudent to provide some diversity in the set of selected applicants to optimize the probability of excellence. Nor is an institution such as MIT acting in a vacuum. For its institutional excellence, it relies heavily on the interaction of its members in their work toward common goals, and it therefore requires diversity among them to maximize the range of inputs available for consideration. At MIT and in most institutions that depend on teamwork, diversity is an essential component of excellence. In short, the pursuit of excellence is not a zero-sum game in which one loses in one area while gaining in another, but a positive-sum game in the long run. This argument is not about impersonal applicants in a sterilized context. It deals with real people in historical context, and the valuation of the qualities which, taken together, define excellence in that context is a matter of deliberate institutional choice which defines the long-term excellence of the institution.

It is ironic that the author of the letter is disturbed by the fact that the School of Engineering had one year out of the past 150 in which there were one or two more women hired than men. He does not seem to consider the possibility that the women who were hired were indeed the most qualified candidates. Instead, he addresses this singular occurrence as a “data point” for some kind of disproportionate hiring of women; yet this year was notable solely be-

cause, despite the high number of excellent women in our graduate schools, we have much lower numbers among our faculty. The contrast in numbers for underrepresented minorities is much more marked — we have departments that have not hired a single underrepresented minority faculty member in 20 or 30 years. A number of additional and more detailed facts about the relative representation in our faculty over the years, as well as significant amounts of data, are provided in the Initiative Report. The observations about the increases in numbers for our student body simply reflect progress gained over several years at MIT and in our nation in general in the introduction of minority students to science and engineering. There is no conspiracy or hidden “unofficial policy” that promotes the admittance or hiring of under-qualified students or faculty, and it is unfortunate that the letter-writer states a very few simple qualitative observations as “facts” in this matter.

The letter-writer states that he does not feel that there are people at MIT who do not belong here. We agree. Our undergraduate and graduate admissions remain among the most highly competitive processes in the nation and indeed, in the world. With regard to faculty searches, departments and schools appreciate the importance of recruiting the top minds from amongst the entire nation rather than from a few narrow niches, and are realizing that there may be gaps in our traditional approaches to recruiting that miss some of these top people. Additional efforts in recruiting do not mean that we seek people who do not represent the levels of excellence that make MIT strong; on the contrary, we often find and can take advantage of missed opportunities for outstanding candidates when we are more rigorous in our faculty searches. The goal is to make sure that we have given ourselves every opportunity to find these top people across race and gender.

**We have departments that have not hired a single underrepresented minority faculty member in 20 or 30 years.**

History tells us that we must make additional efforts to find the researchers, teachers and scientists that we seek among underrepresented groups and women; however, once we are able to do so, we further contribute to the high levels of achievement that MIT is known for. For this reason, it is indeed appropriate and in fact, mandatory that MIT seek to maintain its top position as an institution of learning and knowledge, science and technology, by pursuing scholars of excellence from every group including those whose race or gender have traditionally been less represented. The writer calls for true fairness, inclusiveness and equity — which is exactly the reason we must maintain efforts to become a more truly diverse institution that leverages the strength of all of our human capital toward the goals of *mens et manus* for the

next 150 years.

*Paula T. Hammond '84*

*Professor of Chemical Engineering*

*Former Chair of the MIT Initiative on  
Faculty Race and Diversity*

## Strength in diversity

I recently read *The Tech's* guest column about the "wrong direction with affirmative action." While I do respect the fact that an opinion piece is just that, an opinion, I believe that some opinions are better off not expressed in a newspaper, especially ones that edge into that grey area of sexism and "white-male" complex.

The author of the piece is, I'm sure, factually accurate with his research. His problem lies in his conclusions. One of the reasons MIT is such an amazing place is because of the diversity that it brings. Just yesterday my TA asked us how many languages we spoke, and in a class of 12, there were 13 languages present. These kind of cultural, socioeconomic, and real life experiences are what allows us to learn from one another, develop more worldly views, and grow as people. And yes, as a woman, my real life experiences differ from that of a man, even if we're both white and grew up in suburbia.

What the author has really overlooked, though, is the fact that the people who apply to MIT are, on the whole, equal in terms of their ability to excel in this environment. So many of the applicants who get denied could have easily succeeded as students here. When this happens, the only discernible difference between candidates, then, becomes their life experiences. And unfortunately, white men who grow up in suburbia are not typically the brightest candidates when it comes to having real life experiences that build character and make them able to offer something extra to the Institute. And this really has nothing to do with race or gender, but rather where you live and how you've lived. Honestly, even as a female, when compared to friends I have from around the country, my life has been quite boring and uninspiring. But by getting to know these people, who come from every kind of background possible, my life has been changed for the better. I really can't imagine the author hasn't made friends here at MIT who have challenged his views and helped him grow as a person because of their different background. And *that* is the beauty of MIT. He's not being discriminated against — if he wants to be competitive with minorities, he should take steps in his own life to have those life experiences that will set him apart from everyone else.

Finally, there is some irony in the publication of this article when Lobby 10 has had, for the past week, a huge amount of information on the reality of racism, sexism and the struggles of women and minorities in everyday life. MIT is one of the few places where the disadvantage of being a woman or having differently colored skin is as minimal as it will probably ever be in this world, and the author wants to destroy that relative equality. I'd ask him to take a look around and see how many white guys there are on campus. I assure you, the number is not small. So stop complaining.

Kelley V. Determan '13

Want to know what's going on between issues of *The Tech*?  
Find out what's happening right now at  
*<http://techblogs.mit.edu>.*



GUEST COLUMN

# Excellence has many dimensions

*And MIT flourishes by including all of them*

By Eric Grimson, Daniel Hastings, Christine Ortiz, and Chris Colombo

In the Feb. 17, 2012 issue of The Tech, Brandon Briscoe argues that MIT is “heading in the wrong direction with affirmative action”, and suggests that MIT uses quotas or preferences in its admissions and hiring practices. While we respect Brandon’s right to express his opinion and his courage in doing so, we fundamentally disagree with his premises and statements.

Although Brandon does not use the term quota, he implies that preferences are given to particular groups during admissions and hiring. He suggests that such preferences result in admitting less qualified women and under-represented minorities at the expense of more qualified candidates from well-represented groups.

This is simply not correct. For space reasons, we focus on undergraduate admis-

sions, however, the same principles applies to faculty hiring. MIT does not use target quotas, nor aim for particular distributions of groups. While no admissions process is perfect, MIT works hard to admit an academically excellent, and intellectually, culturally diverse community of students whom they believe well match MIT’s environment. And they work hard in the recruitment, selection, and yield phases to enroll a critical mass of different groups to ensure their success.

MIT is very fortunate to have an exceptionally deep pool of applicants. There are many more fully qualified applicants than there is space for them; we might easily admit twice as many — or more — students as we do currently and not see a decrease in quality.

With such a wealth of great applicants, we consider many factors in admissions decisions. While academic excellence is critical and required, it provides one element of se-

lecting a class. Also important are leadership, innovation, contributions outside the classroom, match of personality with MIT’s atmosphere, and other factors. One can debate how to weigh these elements, and there is no absolute formula, but all admitted students bring other attributes in addition to academic excellence. Essential to creating a dynamic, vibrant campus is creating a diverse community — with different cultural and political perspectives, different experiences, different interests. Our community flourishes when musicians, athletes, humanists, technologists, entrepreneurs, hackers, philosophers, practitioners all interact together; often with individuals possessing elements of multiple perspectives coupled with intellectual depth, curiosity, analytic problem solving skills, and a strong work ethic. With such a deep and diverse pool of applicants from whom to select, our students have all of these qualities. A diverse community shares different modes

of thought, perspectives, and insights, and it creates a richer environment for everyone. Different perspectives are not necessarily less qualified nor should they be less valued; they add to the environment, not detract.

Everyone comes to MIT with a strong desire and the fundamental ability to succeed. Our community suffers when members assume others don’t belong, and treat any stumble as validating this view. Every MIT student goes through periods of self-doubt; imagine the impact if their peers use them to argue that they don’t belong. Non-acceptance can undercut anyone’s confidence, and in fact promote an atmosphere in which otherwise successful members fail. Excellence has many dimensions; MIT flourishes by including all of them.

*Grimson is the Chancellor of MIT. Hastings, Ortiz, and Colombo are the Deans for Undergraduate Education, Graduate Education, and Student Life, respectively.*

GUEST COLUMN

# Unconditionally brilliant

*At MIT, ‘diverse’ is not the opposite ‘qualified’*

By Emad Taliep

In responding to Brandon Briscoe’s guest column, I won’t recount my successes as a minority at MIT, or those of my mother and father, a former employee and a graduate student, respectively. Not that my perspective lacks worth, but other students and faculty members can disprove Briscoe’s insinuations many times over. However, I must address Briscoe faulty evidence of reverse discrimination directly.

Briscoe points out the School of Engineering’s “gloating announcement” that they had hired more women faculty members than men last year. He compares this with the number of graduate women engineers at MIT (at 26 percent) and those in industry (11 percent). This comparison is completely meaningless, as it is misleading to compare a change in numbers with full proportions. In fact, as of 2011, merely 12 percent of tenured MIT engineering professors are women, which gives a better idea of how MIT must stay committed to its policies to set an example for the industry.

Next is Briscoe’s opposition to President

Hockfield’s goal of increasing diversity, which he dismisses as social engineering. Among his grievances is the School of Science’s appropriation of funds to expand the underrepresented minority (URM) faculty body, which he says is illegal under Title VII of the Civil Rights Act of 1964. The Equal Employment Opportunity Commission, which ensures compliance with Title VII, claims otherwise in its suggested best practices:

“A common employer practice is to use a variety of recruitment and hiring techniques ... including job fairs and open houses, professional associations, search firms, and internships and scholar programs. This approach ... is more likely to result in a diverse pool of job seekers. Specialized publications or websites, including those directed to particular communities, may be effective tools for these purposes.”

Combined with MIT’s Affirmative Action Serious Search policy, which uses active efforts that “go beyond posting and advertising the availability of positions,” we see a policy of inclusion, not exclusion. Inclusion involves a general effort to fill the position, plus recruiting other, ethnically diverse candidates. In

contrast, exclusion uses those general efforts, but subtracts candidates of a certain race. Briscoe claims that both MIT’s official policy, and the “unofficial policy” of giving minorities preference in hiring and admissions, are illegal. However, I have shown that the former is legal, and he fails to prove that the latter is even happening.

Indeed, MIT could have reasons outside of race or sex to hire or admit a minority over a nonminority, with all else (e.g. test scores or publications) being equal. Perhaps the minority candidate had better personal qualities, overcame greater adversity, or showed more potential. Such decisions transcend objective measures; indeed, they require examination of qualities and context. After all, rewarding great success despite great hardship is the essence of meritocracy.

Finally, Briscoe says it is unrealistic for each committee to have female faculty members, referring to a 2011 Report on the Status of Women Faculty in the Schools of Science and Engineering at MIT. While this might be true, he omits a potential solution found in the next paragraph. Consulting opportunities are given disproportionately to men, and as a re-

sult, women “may be asked to do more service because of the absent men” who are pursuing their consultancies.

Briscoe does little to apologize for his abrasive stance. He goes from saying that “every student and faculty member that I have ever met at MIT have the intelligence and ambition to ‘deserve’ to be here,” to asking, “As a white male, how am I supposed to feel anything but discriminated against and offended by MIT’s policies of preference and ‘inclusiveness’ for everyone but me?”

Now, had Briscoe encountered great obstacles to his success — be they institutionalized, circumstantial, or societal — I would have been fine with MIT reaching out to him, too, regardless of his race. However, the claim of reverse discrimination rings hollow in this context, as nonminorities were already included in the first place, and in fact, discrimination persists. I applaud MIT for remaining committed to these policies, and hope that they may enable a diverse community of scholars to pass through the doors of the Institute.

*Emad Taliep is a member of the Class of 2014*

GUEST COLUMN

# On excellence and diversity

*Through diversity, MIT will be made stronger*

By Christine Casas

As a Mexican-American alumna of MIT, I feel comforted by Brandon Briscoe’s admission that “don’t get me wrong, every student and faculty member I have ever met at MIT ...deserve[s] to be here.” I’m relieved that the Institute policies which “erode the meritocracy at MIT” somehow allowed me and other appropriately qualified minorities into the school.

I am also touched that Briscoe is concerned about the “quality of experience that these same females, minority students, and faculty experience here.” Did Briscoe actually read the Report on the Initiative for Faculty and Race Diversity? If he had, he might have thought a little bit harder about the attitudes and ideas he expressed in his column, which to me seem to confirm — rather than disprove — the need for affirmative action policies at the Institute. He also might have avoided coming across as someone who understands very little about the minority experience at MIT.

First, regarding his defensive claim that recent Institute reports regarding diversity at MIT “found zero evidence of any systematic discrimination against women or minorities.” To be more accurate, he should have replaced the word “systematic” with “official.” Of course there is no official discrimination against a group that comprises a mere six percent of the total faculty. Why waste time officially discriminating against a group that already experiences the subtle and often overlooked effects of racism at

MIT and their respective communities?

Does it bother Briscoe that, according to the Report, “a shocking 42 percent” of black male faculty report being mistaken as trespassers? Or that the URM faculty respondents reported feeling marginalized? I suppose these facts are of little importance to him. Or maybe they are acceptable to him because in his eyes women and minorities are the beneficiaries of “reverse discrimination.”

Which brings me to my next point: Assigning moral equivalence to our country’s legacy of racism and discrimination against minorities and women (and the resulting disenfranchisement of and exclusion of these groups from higher education) with policies to address underrepresentation of minorities and women in higher education is, at best, thoughtless; at worst, deceitful. Briscoe points to the so-called advantage of being a woman to obtain speaking slots as if this is some kind of pivotal evidence for “pervasive preference” for women and minorities. Is this a joke?

Furthermore, as the Report pointed out, there is already the acknowledged tension between “excellence and diversity.” It should go without saying that the range of human talent and intelligence (as well as all other human traits, positive and negative) spans across all races, nationalities, and ethnicities. MIT’s job is to find the most excellent people, whatever group they belong to, and to make efforts to include groups that have traditionally been marginalized in society.

The challenge of doing this, of course, lies in the fact that people do not exist in a vacuum. Opportunity is not handed out equally — due to socioeconomic forces that are beyond the scope of this piece: discrimination in housing, jobs, varying education opportunities, and access to health care, etc. The myth of pure meritocracy, the concept of which is a thinly veiled, too frequently used, counterargument to efforts to include minorities and women in various organizations, only distracts from the issue and betrays Briscoe’s unconscious assumption that minorities admitted to MIT are less qualified than their non-minority peers — which might be why he took time to reassure us that he believes everyone “deserves to be here.” (It’s unclear to me how everyone is qualified now but will not be in 150 years.)

He writes that “such thoughts and assumptions [about whether minorities and women are qualified enough to be at MIT] will never go away, nor can they.” While the self-doubt that minorities and women experience is a well-documented phenomenon, to point this out as if it is somehow proof of the wrongness of affirmative action policies is mean-spirited. Briscoe seems all too willing to hold on to this assumption to the point of subtle threat: You are never going to be good enough in my eyes as long as the Institute makes you a priority. What he fails to recognize is that this self-doubt is also an outgrowth of the cultural and racial experiences of minorities. As if the psyches of entire groups of people can be attributed

solely to MIT’s affirmative action policy!

In the end, I’m not surprised that as a white male Briscoe is “offended” by the focus on minorities and women. After all, when you belong to a racial group that has traditionally maintained a comfortable majority in society, business, higher education, and politics, and that majority is losing ground as evidence by the growing numbers of minorities in the population, of course you’re going to feel threatened by other groups wanting (and deserving) their fair share of involvement.

Also, if there are X number of faculty slots available, and more of them go to minorities, of course fewer are going to go to whites and Asians. This is the simple math that is reality, not injustice.

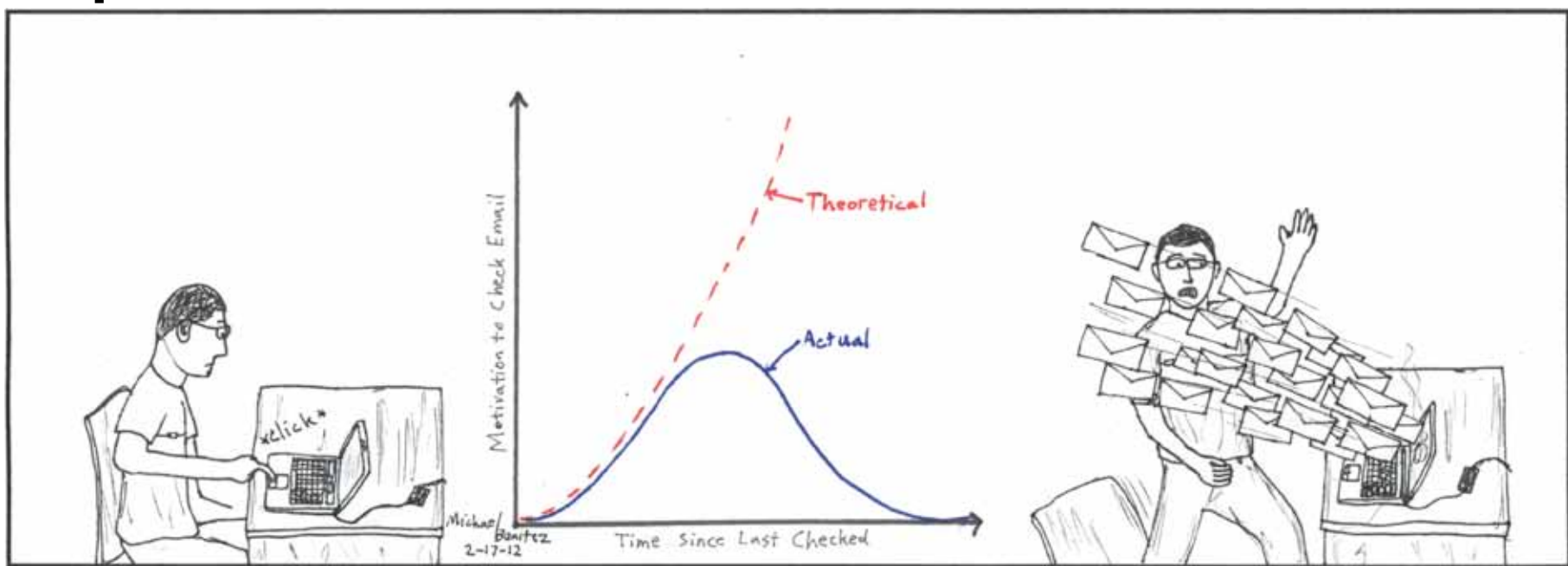
Why shouldn’t the face of MIT look more like the population at large? Briscoe condescendingly claims that “for the good of everyone, MIT needs to stop obsessing over gender and race.”

Rather, for the good of everyone, we need to acknowledge our individual biases and difficulty with issues of race, the tensions between racial groups, that MIT is a microcosm of our larger society, and that true fairness means including everyone, seeking out talent in all places, and making our campus more welcoming for people of all backgrounds — not maintaining the antiquated system of privilege and power for some groups and turning a blind eye to the factors and injustices that exclude others.

*Christine Casas graduated in 2004 with a Bachelor’s in Biology.*







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SATURDAY MORNING BREAKFAST CEREAL

BY ZACH WEINER



by Randall Munroe

## [1015] Kerning



IF YOU REALLY HATE SOMEONE, TEACH  
THEM TO RECOGNIZE BAD KERNING.

I have never been as self-conscious about my handwriting as when I was ink-ing in the caption for this comic.





KIM TRUONG '02

A group of students eat from a chocolate fountain at the freshman Snowflake Ball event in the Media Lab, organized by the 2015 Class Council.

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# DiCarlo aims to make Course 9 best in education, too

DiCarlo, from Page 1

maintain and grow a sense of community in the entire department, and to leverage that diversity to educate our undergraduate and graduate students. Now that we have gone through this great period of growth under Mriganka Sur’s leadership, we now need to consolidate our educational mission. Indeed, my main missions as department head are to strengthen our education programs and to really foster a spirit of community across the department.

TT: Why are you so enthusiastic about BCS?

JD: To think about understanding the brain — it helps to take an analogy that’s a little tired, but still helpful — a computer. If you think about how we would try to understand how a computer works, you realize that there is no one person on the planet that can tell you how a computer works — even though humans built it! Instead, there are people that know about software, algorithms, application design and user interface — what can be called high level, or analogous to the cognitive science end of our department. There are people that know about how circuit boards work, how they can represent data, and how they are connected to each other to execute algorithms — analogous to systems neuroscience. There are people that know an awful lot about transistors, what makes them work well, and their minute connections — the elements that make the entire computer work, analogous to single neurons in the brain. Like the computer, the brain is far more complicated than just these three simple levels, but the point of my analogy is that understanding complex systems like computers requires teams of people than can study and bridge different levels of analysis, and computational neuroscientists to glue those levels together. BCS has people that study

all those different levels, and I want to foster those potential synergies. I aim to bring faculty together. When you get people together, they may not at first think they have much to talk about, but soon new synergies can emerge. Those multiple levels of potential integration are what makes this department so very unique. For example, if you go to another neuroscience department you might find somebody like me who know monkey physiology, and you might find people who know cognitive science, or cell and molecular neuroscience, but they are typically over in some other building or thinking about totally different questions, so it’s almost a physical brick wall there. But in our department and our fabulous new building, those walls do not exist. And that can be used to foster something that is in the DNA of MIT — exciting things happen from the integration of traditionally different disciplines, traditionally different ideas, and we aim to do that very well both within the BCS department and to other departments at MIT.

TT: Why did Course 9 decide to reorganize its undergraduate curriculum and what steps is it going to take in the reorganization?

JD: The changes in our undergraduate curriculum were prompted by a number of things. One of them is that we’re responding to developments in the field and we want to convey things that are new. Indeed, we’re seeing more and more students interested in Course 9, and we want to deliver to those students the best education that we can. A primary driving factor in our curriculum changes is that our courses haven’t traditionally had a progressive build, where “first you take these as foundation classes and then you build on top of that and you build on top of that.” That’s an area we can do better: give students a path by which fundamental courses

— especially MIT-style, quantitative fundamental courses — are going to help them succeed in the higher-level graduate courses and beyond their time at BCS and MIT. Course 9 undergraduates generally go in three directions: medical school, graduate school, and industry — roughly split in thirds. And this diversity leads to different desires for

**‘It is from that basic science understanding that applications will emerge, often in completely unpredictable ways ...’**

*James DiCarlo*  
INCOMING BCS DEPARTMENT HEAD

what each student wants to get out of a Course 9 major. Whatever they choose, we want to make sure that they get a great education — an MIT quality education. I want our curriculum to convey to students what excites us about the links between the brain and the mind, convey the fundamentals that we already know, and teach them the principles and methods by which we gained that knowledge and by which continually work to gain more knowledge. At heart, my goals with education are really about always trying to be the best. I think we are the best in research and we should also be the best in education.

TT: Does that encompass any organization of the graduate curriculum?

JD: We’ve recently made the oral and written qualification system for our graduate students much more rigorous. While progress has been made, there is still room to improve teaching at the graduate curricu-

lum level. We have faculty that each teach things well, but we can give that to students in a much more coherent package, which requires a little more organization and faculty effort toward teaching. I believe that our faculty want to be a part of that, and it’s now my job to help organize that. We know that we can always be better educators and mentors. I think that’s the spirit of MIT — let’s figure out where we can do better, and then do it!

TT: What does Course 9 and BCS need to do to stay at the forefront of research and innovation? Do you have any initiatives and collaborations you’re looking forward to?

JD: To me, the MIT brand and the BCS brand are really about something deeply important — a true basic science mission. Most of our faculty are not thinking directly “I’m going to fix a disease,” but they’re thinking about brain mechanisms that fascinate them. They’re thinking about something that you would call basic science or textbook knowledge — discovering principles and mechanisms underlying how the brain works — deep insights we don’t yet know and we can’t even yet predict. As we gain those insights, we might be able to help alleviate this disease or that condition, we might be able to build new machines that work as well as our own brain, we might be able to build new prosthetic devices that replace lost brain function or augment new brain function. But we just don’t know — the applications of our research will almost surely emerge in unpredictable ways from understanding the way the brain normally works. I’ll be the first to tell you, I love to think about applications of my research on visual object recognition, but in the end those are more dreams and hopes than a guide for what experiment to do next. BCS and MIT must lead the world in the basic science mission. It is from that basic science understanding that

applications will emerge, often in completely unpredictable ways that are more astounding than we can even imagine — that’s been the history of science for decades.

TT: So, on a more personal note, what does Professor DiCarlo do in his free time?

JD: I have a wonderful family — so I spend as much time as I can with them. I also train for marathons; I am running the Boston Marathon in April and hope for a PR. So you might see me at the Z-Center or running around the river, or swimming at the Alumni pool. I need to exercise to keep me sane, and goals to keep it fun.

TT: Do you have any last piece of advice for students?

JD: My one big piece of advice is to avail yourself of this time at MIT. Don’t be afraid to go after that UROP, go into that professor’s office, ask questions and say, “Hey, how can I learn more about this?” or “what do you know about this?” Most MIT faculty have warm hearts and genuinely like being around curious students. They’re just really busy, so it’s just a matter of cornering them and asking a few questions. You’re in a very unique place and mix of people right now, so you have opportunities that you will not have later when you’re off working for company x, y or z. So it’s really a time for you to not only learn facts, but to learn what you like, what’s in your heart. For example, when I was an undergraduate I thought I was going to be a doctor, but I found a great research advisor and got immersed in research. One thing led to another, and now I get to lead a great department that has the world’s best chance of explaining how brain networks give rise to the mind. In that sense, the MIT UROP program is a truly great thing; it’s not just something to check off a list, it’s a time to find things that can excite you more than you can imagine.

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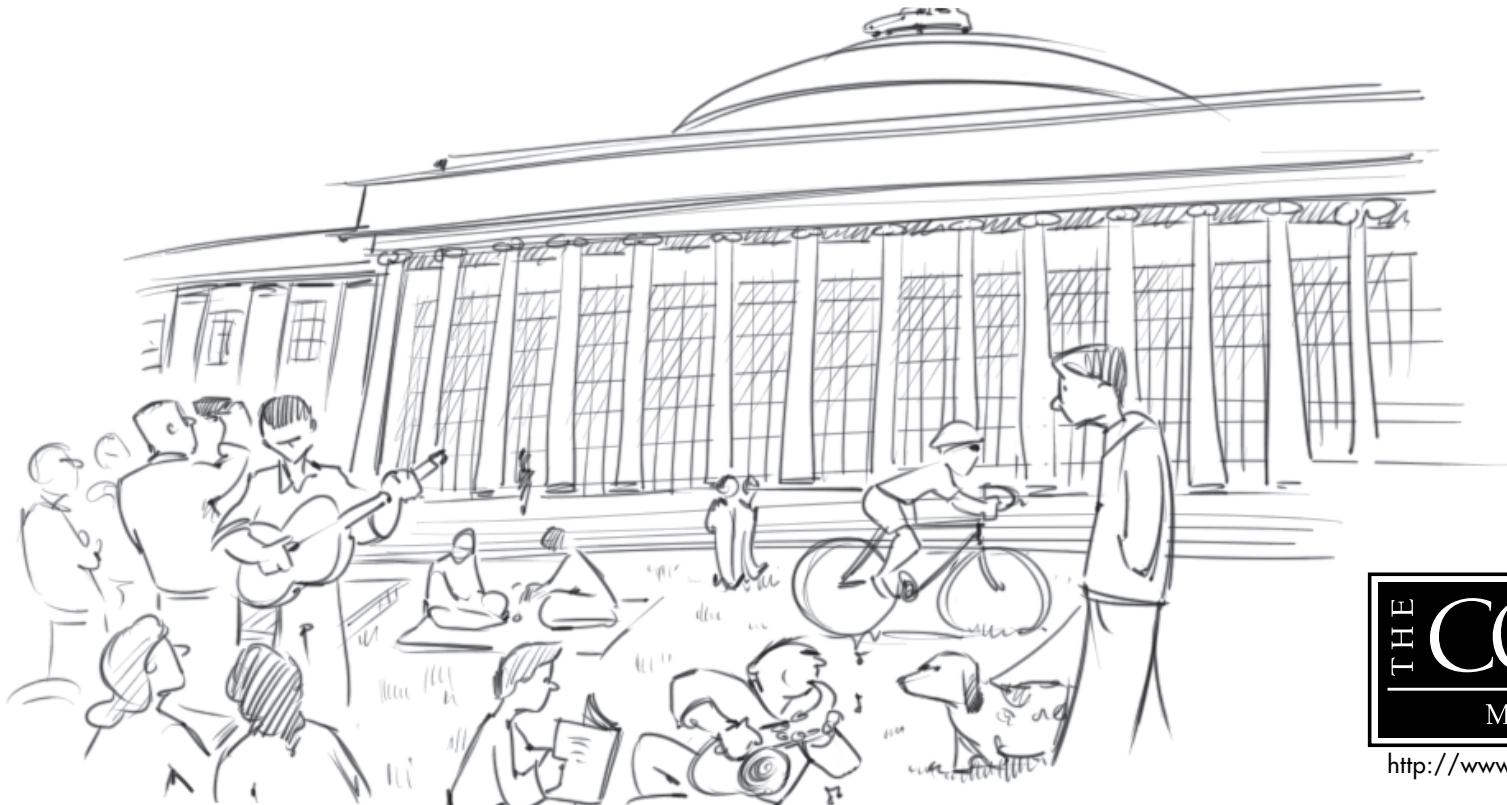
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# Microtargeting helps campaigns customize ads

By **Tanzina Vega**  
THE NEW YORK TIMES

Political campaigns, which have borrowed tricks from Madison Avenue for decades, are now fully engaged on the latest technological frontier in advertising: aiming specific ads at potential supporters based on where they live, the websites they visit and their voting record.

In recent primaries, two kinds of Republican voters have been seeing two different Mitt Romney video ads pop up on local and national news websites. The first, called “It’s Time to Return American Optimism,” shows the candidate on the campaign trail explaining how this was an election “to save the soul of America.” It was aimed at committed party members to encourage a

large turnout. The second video ad, geared toward voters who have not yet aligned themselves with a candidate, focuses more on Romney as a family man. Versions of the two ads were seen online in Florida, Iowa, New Hampshire and South Carolina.

Kenneth M. Goldstein, president of the Campaign and Media Analysis Group at Kantar Media, part of the advertising giant WPP, said Romney’s directed ads represented a sea change in political advertising.

“Forty years ago, you’d watch the same evening news ad as your Democratic neighbor,” Goldstein said.

The technology that makes such customized advertising possible is called microtargeting, which is similar to the techniques nonpo-

litical advertisers use to serve up, for example, hotel ads online to people who had shopped for vacations recently.

**The chief benefit of microtargeting is that campaigns can spend their money more efficiently by finding a particular audience.**

In the past few years, companies that collect data on how consumers behave both online and off and what charitable donations they make have combined that vast store of information with voter registration records.

As a result, microtargeting allows campaigns to put specific messages in front of specific voters — something that has increased in sophistication with the large buckets of data available to political consultants.

Zac Moffatt, digital director for Romney’s campaign, worked with a company called Targeted Victory for the online ads.

“Two people in the same house could get different messages,” Moffatt said. “Not only will the message change, the type of content will change.”

Few campaigns like to talk about this kind of advertising. Representatives from the Obama campaign and the Gingrich campaign would not confirm whether they were using targeted ads tied to voter data. Saul Anuzis, chair-

man of the Republican National Committee on Technology, said he expected spending on digital political ads to reach 10 to 15 percent of campaign budgets in the 2012 election season.

Those numbers pale beside what campaigns will spend on television or direct mail. But the chief benefit of microtargeting is that campaigns can spend their money more efficiently by finding a particular audience and paying \$5 to \$9 per thousand displays of an ad, Anuzis said.

“We can now literally target the household,” Anuzis said.

Microtargeting is largely done by a handful of campaign consultant groups including Aristotle, CampaignGrid and Targeted Vic-

**Data gathering, Page 13**

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Data gathering, from Page 12

tory, which collect some of their data from direct marketing companies like Acxiom and Experian. The companies are reluctant to discuss which candidates are their clients, but according to a Federal Election Commission filing, CampaignGrid does work with the Ron Paul super PAC, Endorse Liberty.

The process for targeting a user with political messages takes three steps. The first two are common to any online marketing: a “cookie,” or digital marker, is dropped on a user’s computer after the user visits a website or makes a purchase, and that profile is matched with offline data like what charities a person supports, what type of credit card a person has and what type of car he or she drives. The political consultants then take a third step and match that data with voting records, including party registration and how often the person has voted in past election cycles, but not whom that person voted for.

Throughout the process, the targeted consumers are tagged with an alphanumeric code, removing their names and making the data anonymous. So while the campaigns are not aiming at consumers by name — only by the code — the effect is the same. Campaigns are able to aim at specific possible voters across the Web. Instead of buying an ad on, say, The Miami Herald website, a campaign can buy an audience.

Another advantage is that these ads can be bought quickly — using an auction process to obtain ad space — when campaigns need to move rapidly to aim at an audience, for example, to counter a bad debate performance or an unflattering newspaper article.

“If you can get in front of a news story, if you can help frame the debate rather than respond to the debate,” Anuzis said, “that makes a big difference.”

John Simpson, media director at Blue State Digital, which worked with the Obama campaign in 2008, said bidding technology means strategists can “get a campaign up and running very fast and also potentially pull it down very fast.”

In 2009, Chris Christie, then a candidate for governor in New Jersey, worked with CampaignGrid to respond to accusations from Gov. Jon S. Corzine that he supported cutting healthcare coverage including mammograms. In response, Christie’s campaign quickly created a video ad showing him sitting at a kitchen table with his wife and telling the story of his mother’s struggle with breast cancer.

It was aimed at female Republican voters who were searching for information on breast cancer.

“It’s awful for the governor to try to desperately hold on to power by scaring people,” Christie said at the end of the video.

Mike DuHaime, a partner at Mercury Public Affairs who ran Christie’s campaign, said of the ad:

“I think the biggest thing in politics is just being able to move quickly. I don’t know if it won us the campaign, but it kept us from losing.”

When Gov. Bobby Jindal of Louisiana was running for re-election last year, his campaign used a number of ads with different messages. Blaise Hazelwood, the president of Grassroots Targeting, the company that worked on Jindal’s campaign, said voter registration data was critical to the success of the digital campaign.

“We want to hit the people who can actually go out and vote,” Hazelwood said.

The digital campaign ran in September and October and the company placed ads online to reach registered Republicans as well as registered Democrats. There were more registered Democrats in the state, and early polling had shown that some were “favorable toward Jindal,” Hazelwood said.

Critics say the ability to limit political messages to registered voters toes the line of social discrimination. Daniel Kreiss, an assistant professor at the School of Journalism and Mass Communication at the University of North Carolina at Chapel Hill, called some of the targeting techniques a form of political redlining.

“These practices, as they get more sophisticated, leave entire segments of the population out of the political communication of the campaign,” Kreiss said, adding that “campaigns aren’t going to spend resources on people who aren’t seen as being important.”

Professor Joseph Turow of the Annenberg School for Communication at the University of Pennsylvania said ads aimed at registered voters, while efficient for the campaign, benefited the candidate in another way.

“Different people getting different ideas about a candidate maximize the chances that a person would agree with you.”



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**Solution to Techdoku**  
from page 7

1	6	2	4	5	3
3	2	4	6	1	5
5	4	6	2	3	1
6	5	1	3	4	2
4	3	5	1	2	6
2	1	3	5	6	4


**Solution to Crossword**  
from page 8

EDITING	ORIGAMI
ROMANIA	CONICAL
ROOMKEY	HOGBACK
ONUS	CLEO
OBIES	
LET	ZEE
BOS	
SALES	PROD
CCL	
ABHOR	GLASSWARE
HUEVOS	RANCHEROS
ARRESTING	ANGST
BYE	ULNA
UPDOS	
IMO	DINE
HET	
AWING	FEMA
LODE	
TOOLATE	ABSALOM
ARTEMIS	CLOUDUP
DNATEST	SENDSTO

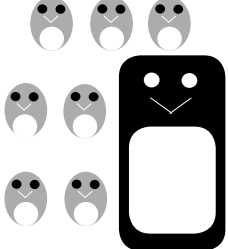
**Solution to Sudoku**  
from page 7

7	8	3	1	2	4	6	9	5
2	4	9	5	8	6	1	3	7
1	6	5	3	9	7	2	8	4
8	9	2	7	1	3	4	5	6
6	3	7	8	4	5	9	2	1
5	1	4	2	6	9	3	7	8
9	2	8	6	5	1	7	4	3
4	7	1	9	3	8	5	6	2
3	5	6	4	7	2	8	1	9

**SMBC, from Page 8**



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## FRESH START

# Lifting weights, losing waists

# Weight training can boost your health, make you lean, and protect you from injury

**By Allison Hamilos**

Now that you've had a chance to get comfortable with keeping your Workout Book (See Feb. 14 "Fresh Start"), it's time to start thinking about what workouts to put in it. Today's article is an introduction to weight training: its benefits and how to incorporate it into your weekly routine. But first, let's clear up some myths about working out and weight training in particular:

## Some common misconceptions

1. To lose weight, you have to run for 30 minutes every day. The “cardio myth” that many novices have can be incredibly discouraging. When I was in elementary school, the yearly mile-run was a dreaded torture that inevitably ended in humiliation when I had to walk half the way. For my nine-year-old self, the idea of running three to five times as far, multiple days per week, would have been so intimidating that I would have never tried to get in shape in the first place. The good news is that this myth was and is completely false.

Martinovich's trainees on the Women's Lacrosse or Basketball teams, all of whom generally lift at least twice per week while in season.

If you're especially concerned with putting on extra muscle, Martinovich recommends adopting a "toning routine," a weight training protocol that focuses on doing exercises for many reps (10-15). These endurance-improving routines will improve "muscle tone and definition while reducing body fat without adding bulk." This is true for men, too — think marathon runners or cyclist body types.

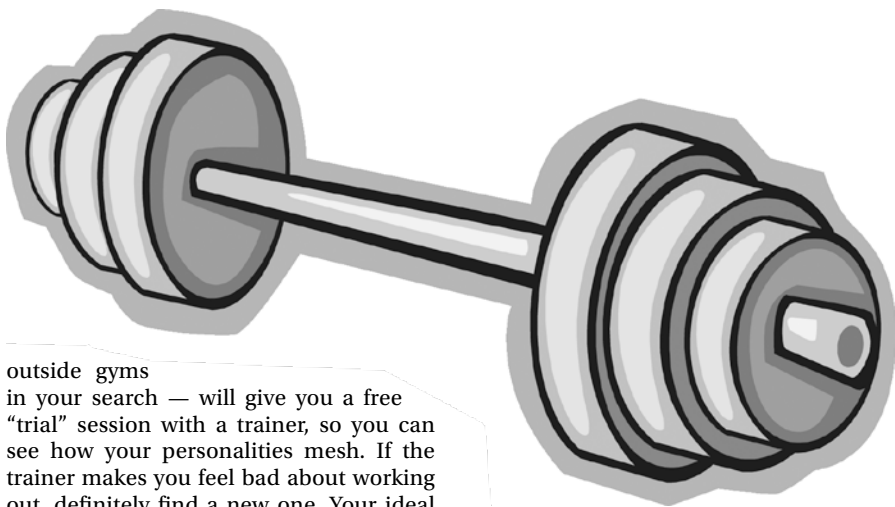
3. Weight training makes you inflexible. False, false, false! Martinovich and other strength experts agree that “full range of motion” exercises with free weights actually improve flexibility, balance, and joint health. Why? “Full range of motion lifts strengthen muscles around the joints, especially stabilizers, while improving balance. The number one reason athletes do these lifts is injury prevention,” says Martinovich.

4. The weight room is scary; people will judge me. This isn't exactly a myth, but it is a fear that should and can be alleviated with the proper introduction. "Level of comfort in the weight room can be a big hurdle for novices," Martinovich acknowledges, "but weight training classes like those offered by MIT's PE can teach you proper forms and techniques. Once you become confident, you can take the workout plans you've learned to any gym, anywhere."

In fact, Martinovich is teaching one of the PE weight lifting classes this quarter. He says that the class was revamped last IAP to be more like a varsity weight training session, with fewer breaks and more efficient protocols. "The student response has been really positive. They like how they can get an intense workout in a short time, as little as 35 minutes."

If you'd rather work one-on-one, hiring a personal trainer can be one of the best decisions of your life. Although training can be expensive, having a trainer push you to be your best in a safe way will not only improve your confidence, it will make going to the gym a lot of fun! In my own experience, a good trainer will encourage you and help you improve much faster than training on your own or even in a class. The difference is personal attention. When a trainer is on the same page as you about your fitness goals, he or she can personalize your workout routine to maximize your gains. Perhaps more important, your trainer will make sure you're exercising with safe form and prevent you from overtraining or injuring yourself.

Be careful, though, when choosing a trainer. It's important to find someone you like working with who makes you feel good about your workouts. Many gyms — and it can be worth including both MIT and



outside gyms  
in your search — will give you a free  
“trial” session with a trainer, so you can  
see how your personalities mesh. If the  
trainer makes you feel bad about working  
out, definitely find a new one. Your ideal  
trainer should only make you feel strong,  
safe, and confident.

Two other important points: check their credentials and talk to some of the people you see in the gym about how they like their trainers. By credentials, I mean look at their business card or gym website. “NSCA CSCS” means Certified Strength and Conditioning Specialist, “PICP” means Poloquin International Certification Program, “NASM CPT” means Certified Personal Trainer, etc.

If your trainer doesn't have any kind of certification, you may want to consider finding someone who has gone through more specific education and training in their field. And finally, talking to people in the gym can give you a sense of the community. If people seem happy, healthy, and friendly, it's probably a nice place to workout.

**'The students like how they can get an intense workout in a short time, as little as 35 minutes.'**

One more tip: As my financial analyst brother says, “If you’re going to invest your money, don’t ask the guy wearing a cheap suit.” By the same token, don’t go to someone who looks unathletic for personal training. There could be some good strength coaches who aren’t in shape, but personally, I’d rather trust my health to someone who practices what they preach.

## Incorporating strength training

Now that you're convinced you should give weights a try, here's how you should plan your workouts.

1. **Getting Started:** As Martinovich says, “form and technique are critical,” so before you start adding in weights, be sure to find a teacher you can trust. Although your friend might love lifting weights, this doesn’t mean you should trust them to teach you. Instead, find a strength coach or take a PE class. If you’re still interested in trying the class, show up at the next session or shoot the coach an email and ask if you can still join. Chances are they will be happy to have you.

Martinovich also recommends checking out YouTube: “There are some great instructional videos that will take you through every step of a lift.” I concur — that’s how I finally learned the snatch, an advanced lift.

Another great idea is to find a book about weight lifting. Amazon has plenty of titles, and you can also find them at the library. Try to find one with pictures and explanations of different lifts as well as suggestions for which exercises to do in the same session. I happen to own a book from the '80s called *Getting Stronger*, by Bill Pearl, which, best of all, features an epic picture on the cover of a man and a woman in full-blown Richard Simmons-style workout garb. Functional and hilarious.

2. Planning Your Workout: Now's the time to use your Workout Book. You should aim to lift at least twice a week, one

day focusing on lower body lifts, the other on upper body. According to Martinovich and my own strength coach, Mike Jones, splitting up muscle groups is effective because it gives one set of muscles a chance to recover while you continue to train the other.

**Your ideal trainer  
should only make you  
feel strong, safe, and  
confident.**

If you'd like to do more, you can opt for a three-day schedule, which is what I do. Mondays, I focus on lower body; Wednesdays, I do cardio and upper body; and Fridays, I do a synthesis workout, with a little of both. Rest days are important, though, so it can be a good idea to limit weights to no more than four days per week. In the meantime, you can relax or do another fitness activity you enjoy, like running, playing a sport, dancing, swimming, etc.

3. **Improving Your Workout:** Be sure to track your weights and reps in your workout book. Each time you go to the gym, you should try to push yourself a little harder – provided you are properly spotted and not overtraining. If you can do an entire set of an exercise without breaking a sweat, it's time to add a little more weight. Many trainers recommend that you select a weight where you can just barely finish a set of repetitions with proper form.

Another good idea is to try videotaping yourself. Martinovich says this can be an excellent way to see if you're lifting with a full range of motion and with proper form. If you're not, it can also help you fix your mistakes.

3. Recovery: Weight training is not meant to be done every day, and its demands require proper attention to hydration and nutrition. Martinovich especially emphasizes hydration, “Most people don’t drink nearly enough. The average male should be drinking three liters of water per day, and the average female should be drinking two liters per day.” Water is necessary just to recover from training, it’s also essential to mental clarity, something we all need at TFP!

4. Nutrition is equally important. Weight training breaks down muscle, so protein-rich meals are essential for rebuilding. There are different schools on the particular workout diet you should use, so we will leave that discussion for next week.

## Overall

As Martinovich says, “healthy body, healthy mind” — even if you think exercising, particularly strength training, will exhaust you, the truth is this kind of training will keep you from becoming run down as easily. Time in the gym can help reduce stress, improve mental clarity, and decrease your recovery time for both mental and physical exercise. The endorphin boost associated with working out and staying strong can boost your energy and strengthen your immune system so you can be at your best every day.

*Disclaimer: I may be a premed, but I'm not a doctor yet! As always, be sure to check with your doctor before starting a new fitness regimen and be sure to stop and ask an athletic trainer for help if you feel pain during exercise. Be healthy, train healthy!*



*Next stop for the Engineers is NCAA Division III National Championships*

JESSICA L. WASS—THE TECH

## Swim & Dive, from Page 1

On the women's team, sophomores Calley L. Murphy and Christy K. Rogers made notable impacts on the meet. Murphy commanded the 100-yard breaststroke, winning the event with a 1:04.96 cut. Rogers, in similar fashion, placed first in the 100-yard backstroke in 56.17 seconds, making another NCAA "A" cut for the Engineers. Murphy and Rogers did not stop with these two wins as they each went on to win the 200-yard backstroke

Although the NEWMAC championship meet is the end of the season for most swimmers in the conference, many of our Engineers are now setting their sights on the NCAA Division III National Championships. Qualifying for nationals is extremely competitive, but the Engineers anticipate sending a number of their top swimmers. Expect to see Wyatt L. Ubellacker '13, Matthew R. Chapa '12, Colby W. Dunn '14, and Brendan T. Deveney '13 to lead the men's team and Amy E. Jacobi '11, Calley L. Murphy '14, Christy K. Rogers '14, and Emily A. Ryan '15 to spearhead the women's effort at the National Championships.

## Basketball celebrates seniors at final home game

The fundraiser was a nice way to bring the community together, rally for a great cause, and bring out a competitive spirit in the players and the fans. The Cougars attacked, but the Engineers fought back and ended the regular season 10-14. I hope we'll see the Engineers bring this aggressive energy that we saw in the second half of this game to next season.



—Carlos Greaves, Sports Staff